

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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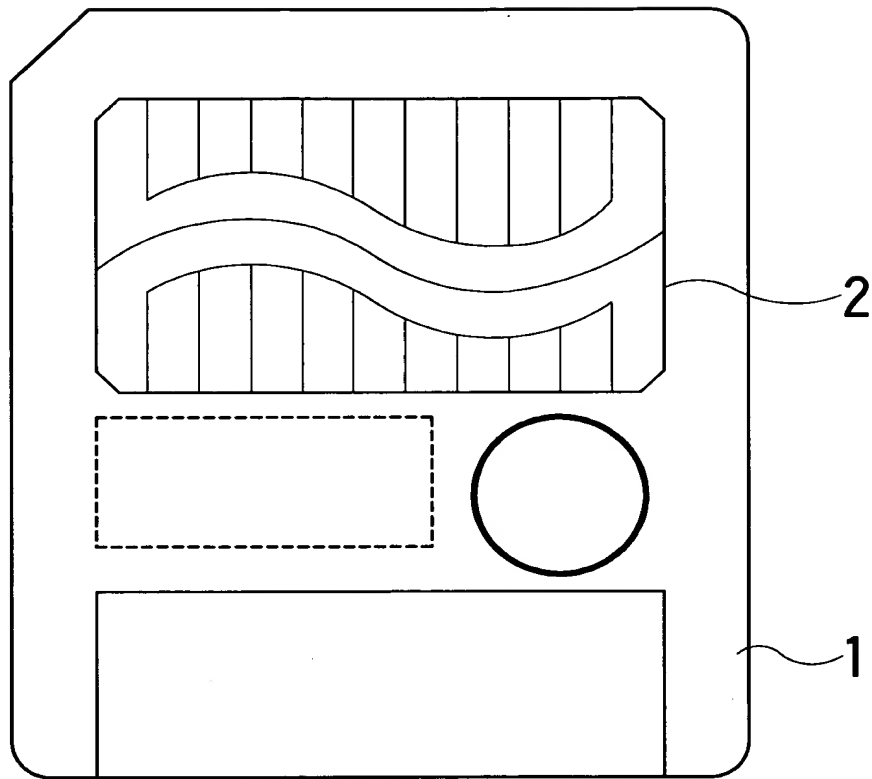


FIG. 1

864080" 878080" 878080"

		0	255	256	263
PHYSICAL BLOCK 0	Page 0	DATA AREA (256BYTES)		REDUNDANT DIVISION (16BYTES)	
	Page 1				
	⋮				
	Page 15				
PHYSICAL BLOCK 1	Page 0				
	Page 1				
	⋮				
	Page 15				
⋮	⋮	⋮		⋮	
PHYSICAL BLOCK 511	Page 0				
	Page 1				
	⋮				
	Page 15			21 / 45	

FIG.2

3154080" 3154080" 3154080"

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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PHYSICAL BLOCK 0	SECTOR 0	512 BYTES
	SECTOR 1	
	⋮	
	SECTOR 7	
PHYSICAL BLOCK 1	SECTOR 8	
	SECTOR 9	
	⋮	
	SECTOR 15	
⋮	⋮	⋮
PHYSICAL BLOCK 499	SECTOR 3992	
	SECTOR 3993	
	⋮	
	SECTOR 3999	

FIG. 3

864080" 813081.60

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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DATA DIVISION

BYTE	PAGE 0(EVEN PAGE)	PAGE 1(ODD PAGE)
0~255	DATA Area-1	DATA Area-2

REDUNDANT DIVISION

BYTE	EVEN PAGE	ODD PAGE
256	User Data Area	ECC Area-2
257		
258		
259		
260	Data Status Area	Block Address Area-2
261	Block Status Area	
262	Block Address Area-1	ECC Area-1
263		

FIG. 4

954080" 8730E160

		0	511	512	527
PHYSICAL BLOCK 0	Page 0	DATA AREA (256BYTES)	REDUNDANT DIVISION (16BYTES)		
	Page 1				
	⋮				
	Page 15				
PHYSICAL BLOCK 1	Page 0				
	Page 1				
	⋮				
	Page 15				
⋮	⋮	⋮	⋮		
PHYSICAL BLOCK 1023	Page 0				
	Page 1				
	⋮				
	Page 15				

FIG.5

864000"8700E160

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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LOGICAL BLOCK 0	SECTOR 0	512 BYTES
	SECTOR 1	
	⋮	
	SECTOR 15	
LOGICAL BLOCK 1	SECTOR 16	
	SECTOR 17	
	⋮	
	SECTOR 31	
⋮	⋮	⋮
LOGICAL BLOCK 999	SECTOR 15984	
	SECTOR 15985	
	⋮	
	SECTOR 15999	

FIG.6

862080" 87832160

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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DATA DIVISION

BYTE	
0~511	DATA Area

REDUNDANT DIVISION

BYTE	
512	User Data Area
513	
514	
515	
516	Data Status Area
517	Block Status Area
518	Block Address Area-1
519	
520	ECC Area-2
521	
522	
523	Block Address Area-2
524	
525	ECC Area-1
526	
527	

FIG. 7

09120810-0807
86/080" 8180ET60

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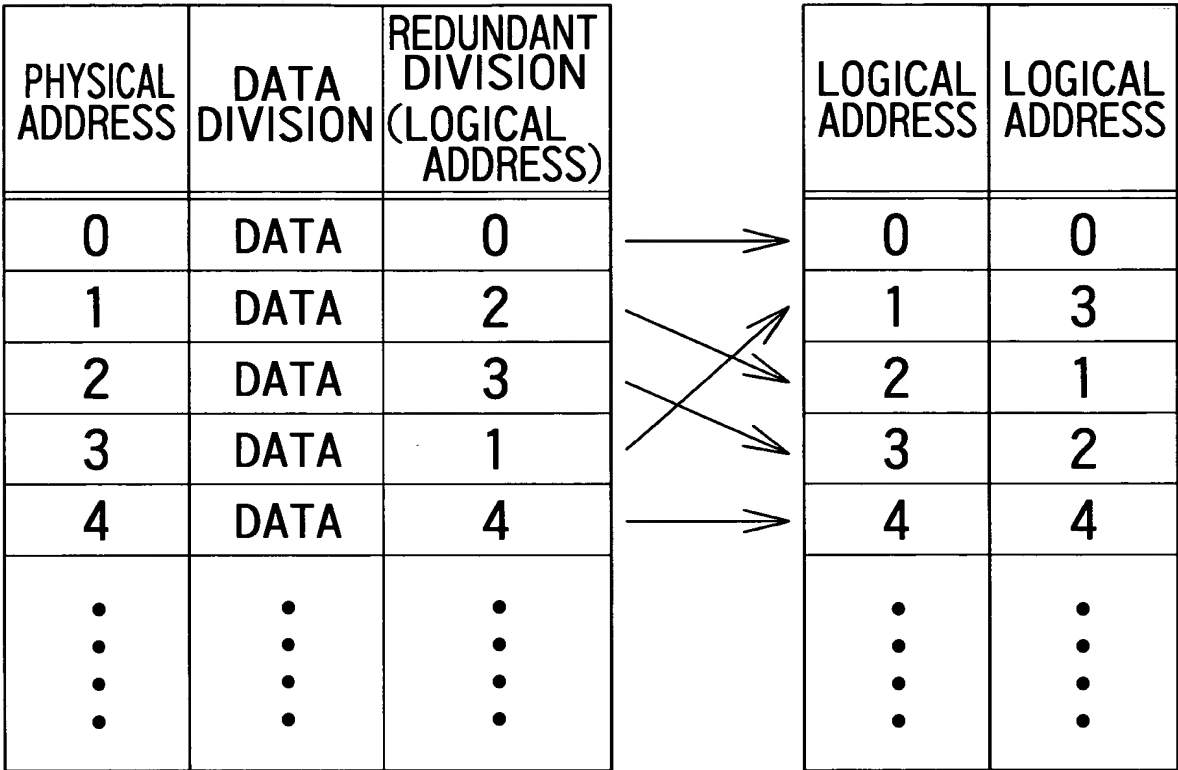


FIG.8

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OFFSET (LOGICAL BLOCK ADDRESS)	PHYSICAL BLOCK ADDRESS	PHYSICAL BLOCK ADDRESS (BINARY DATA)			
		OPPER BYTE		LOWER BYTE	
word0(LBA=0)	0	0000	0000	0000	0000
word1(LBA=1)	500	0000	0001	1111	0100
word2(LBA=2)	327	0000	0001	0100	0111
⋮	⋮	⋮	⋮	⋮	⋮
word497(LBA=497)	244	0000	0000	1111	0100
word498(LBA=498)	249	0000	0001	1110	1111
word499(LBA=499)	128	0000	0001	1000	0000

FIG.9

OFFSET (LOGICAL BLOCK ADDRESS)	PHYSICAL BLOCK ADDRESS	PHYSICAL BLOCK ADDRESS (BINARY DATA)			
		OPPER BYTE		LOWER BYTE	
word0(LBA=0)	0	0000	0000	0000	0000
word1(LBA=1)	1000	0000	0011	1110	1000
word2(LBA=2)	654	0000	0010	1000	1110
⋮	⋮	⋮	⋮	⋮	⋮
word997(LBA=997)	488	0000	0001	1110	1000
word998(LBA=998)	498	0000	0001	1111	0010
word999(LBA=999)	256	0000	0001	0000	0000

FIG.10

362080" 8133E160

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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D7	D6	D5	D4	D3	D2	D1	D0	256 + 8 BYTE/PAGE
0	0	0	1	BA10	BA9	BA8	BA7	262 BYTE(EVEN PAGE) 259 BYTE(ODD PAGE)
BA6	BA5	BA4	BA3	BA2	BA1	BA0	P	263 BYTE(EVEN PAGE) 260 BYTE(ODD PAGE)

BA10~BA0:LOGICAL BLOCK ADDRESS
P EVEN PARITY BIT "1" FIXED VALUE

FIG.11

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

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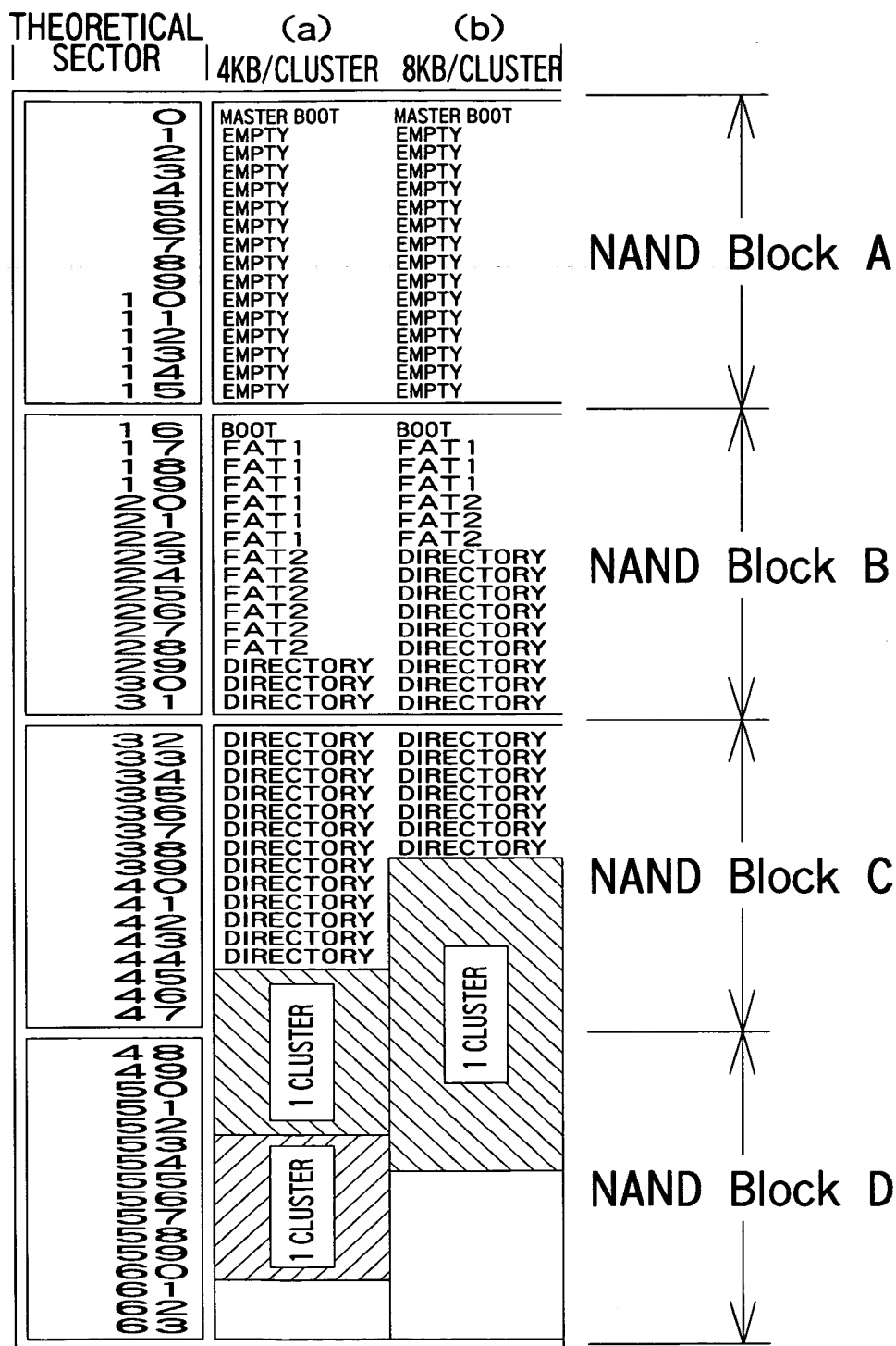


FIG. 12

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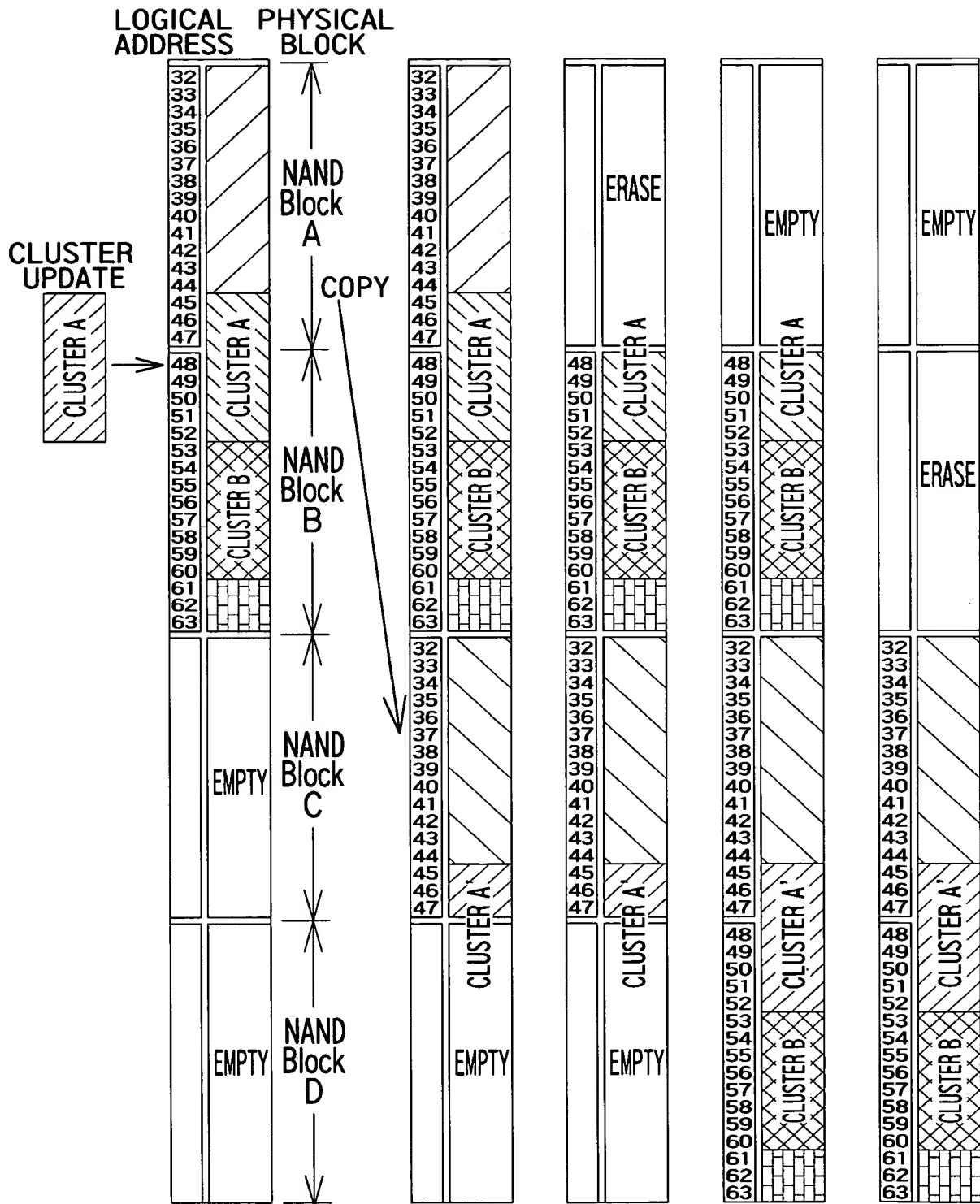


FIG. 13

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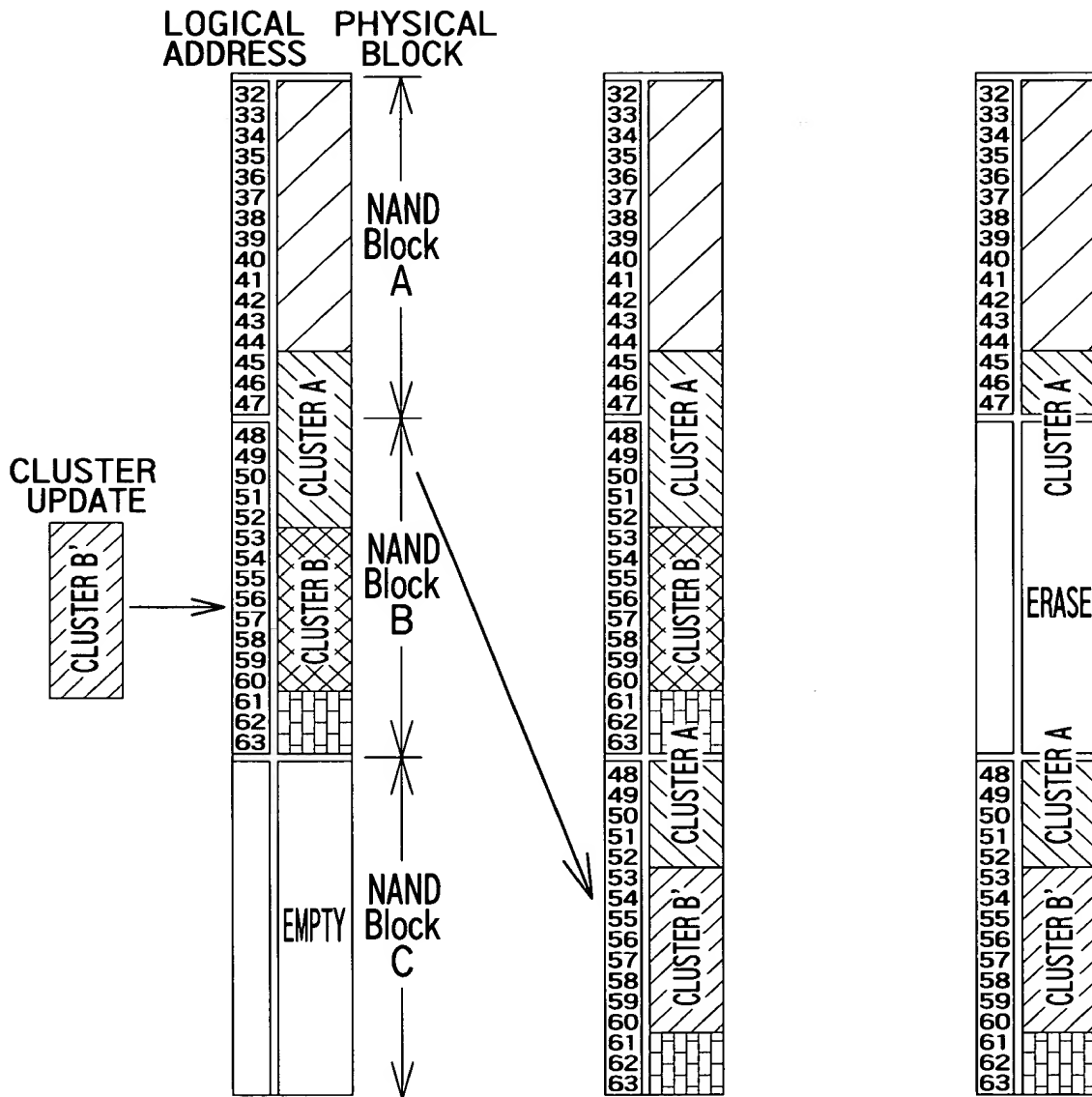


FIG. 14

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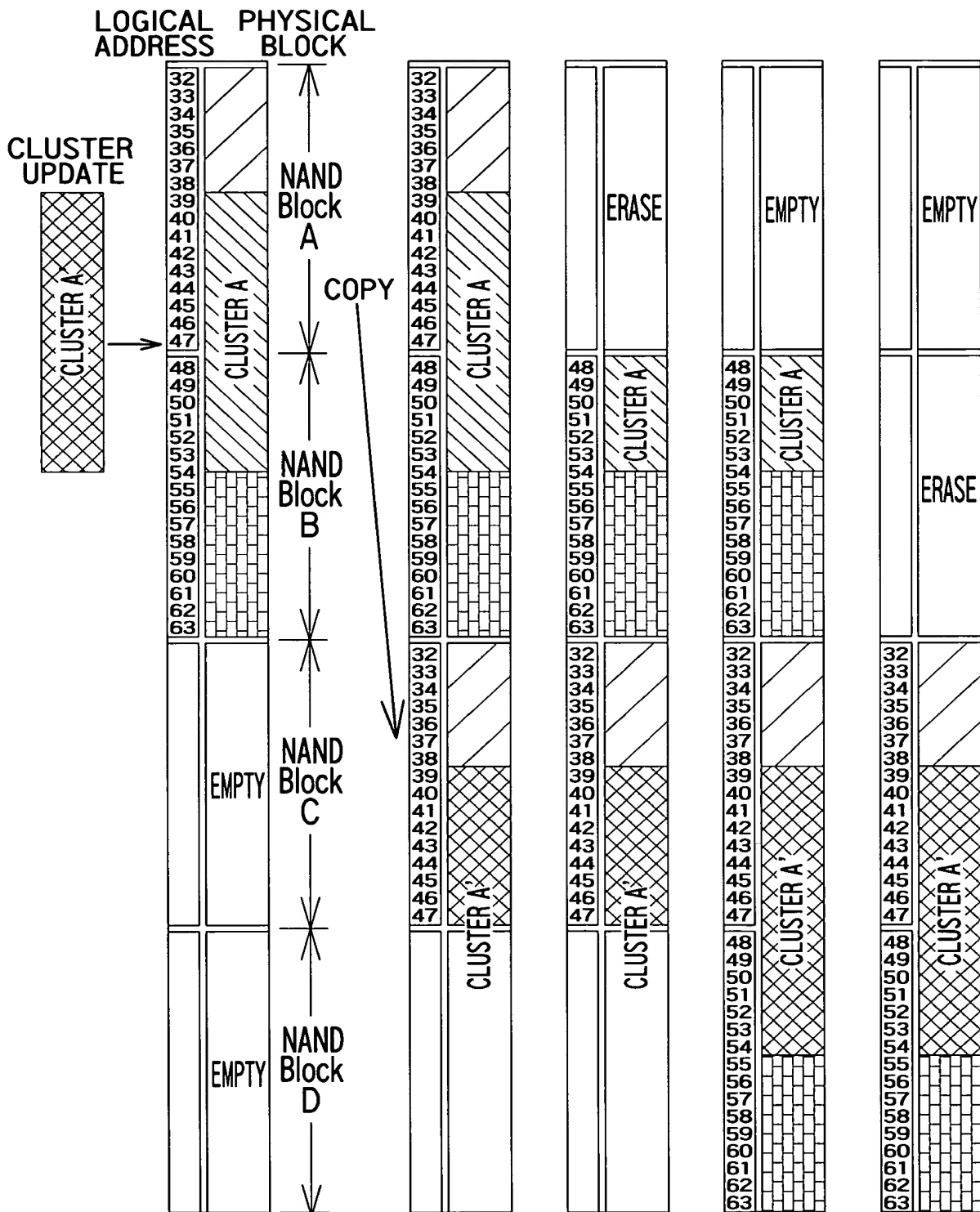


FIG. 15

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MANAGEMENT AREA

File-1	
File-2	
File-3	
File-4	
⋮	
File-N	

File-1, File-4
ERASE →

MANAGEMENT AREA

File-1	del Mark
File-2	
File-3	
File-4	del Mark
⋮	
File-N	

DATA AREA

File-1
File-2
File-3
File-4
⋮
File-N

DATA AREA

File-1
File-2
File-3
File-4
⋮
File-N

FIG. 16

55,200,000

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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	CARD IN FIG.2(a)	CARD IN FIG.2(b)
<div><div>CPU</div><div>ECC CIRCUIT 1</div></div> <div>SYSTEM A</div>	AVAILABLE	VNAVAILABLE
<div><div>CPU</div><div>ECC CIRCUIT 2</div></div> <div>SYSTEM B</div>	VNAVAILABLE	AVAILABLE

FIG.19

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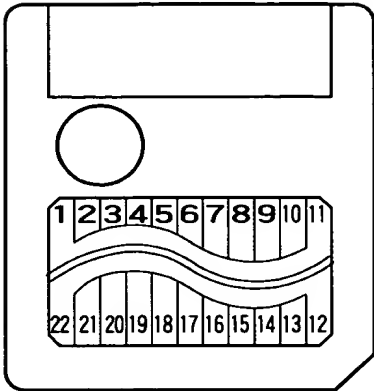


FIG.20

1,10,11	V _{SS}	POWER SUPPLY (GND)
2	CLE	COMMAND LATCH ENABLE
3	ALE	ADDRESS LATCH ENABLE
4	\overline{WE}	WRITE ENABLE
5	\overline{WP}	WRITE PROTECT
6-9	I/O ₁₋₄	ADDRESS DATA COMMAND INPUT-OUTPUT PORT
13-16	I/O ₅₋₈	ADDRESS DATA COMMAND INPUT-OUTPUT PORT
17	NC	N_C
18	GND	GND LEVEL INPUT
19	R/ \overline{B}	READY BUSY OUTPUT
20	\overline{RE}	READ ENABLE
21	\overline{CE}	CHIP ENABLE
22,23	V _{CC}	POWER SUPPLY

FIG.21

664033" ST30CT60

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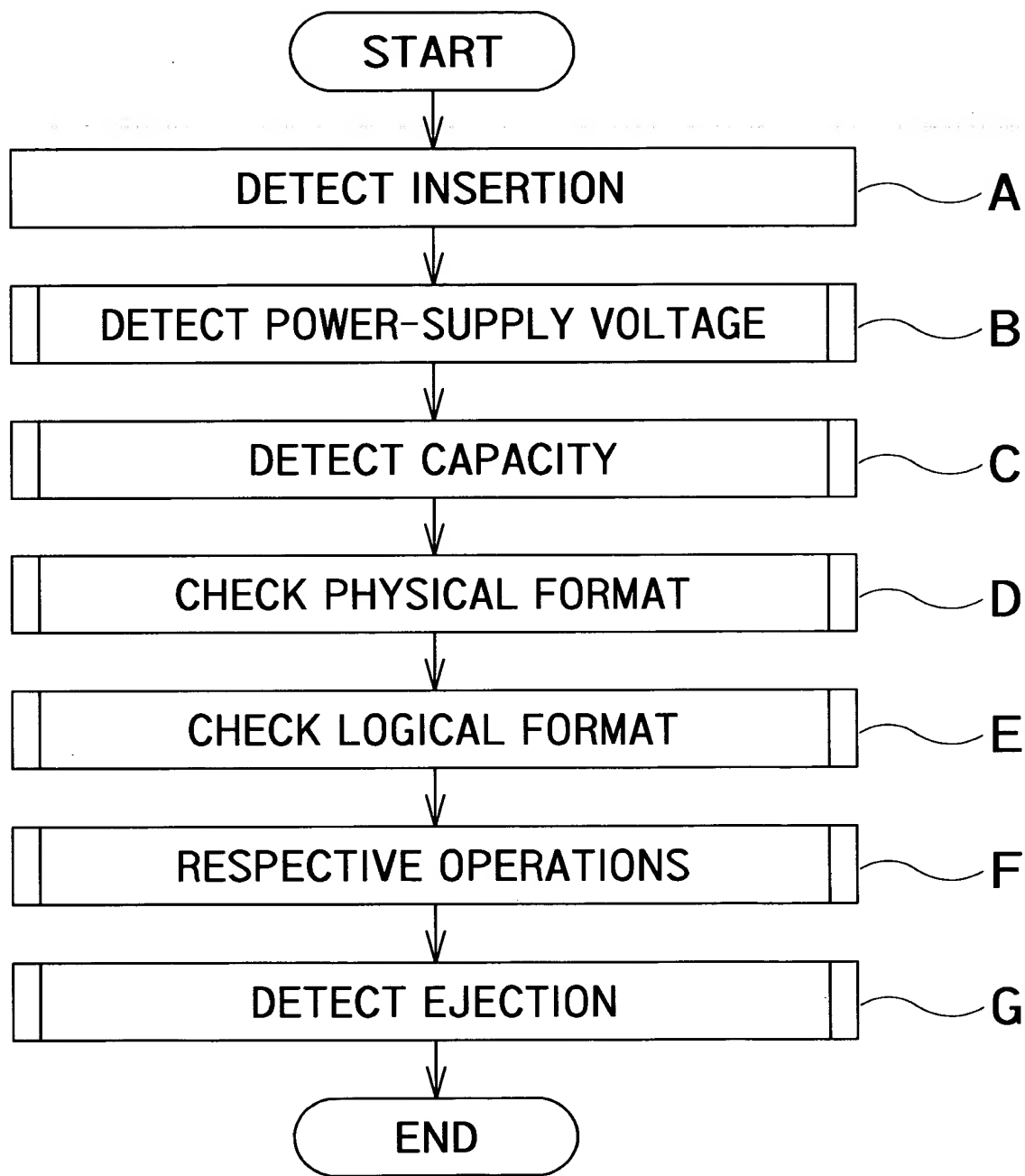
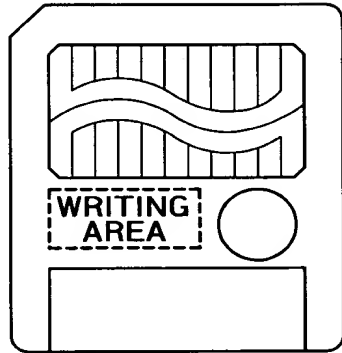


FIG. 22

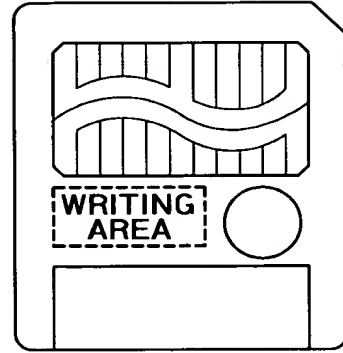
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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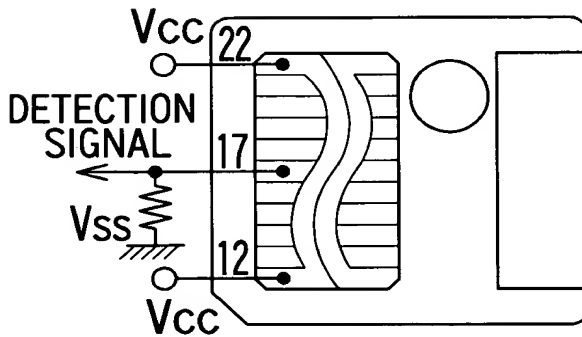
5V PRODUCT

FIG. 23(a)



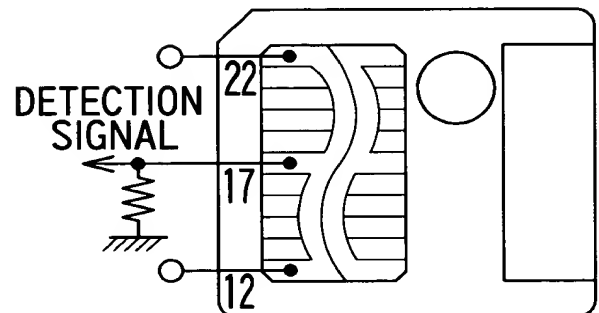
3.3V PRODUCT

FIG. 23(b)



5V PRODUCT

FIG. 24(a)



3.3V PRODUCT

FIG. 24(b)

364030" STB00T-00

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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5V/3.3V DEDICATED CONNECTOR

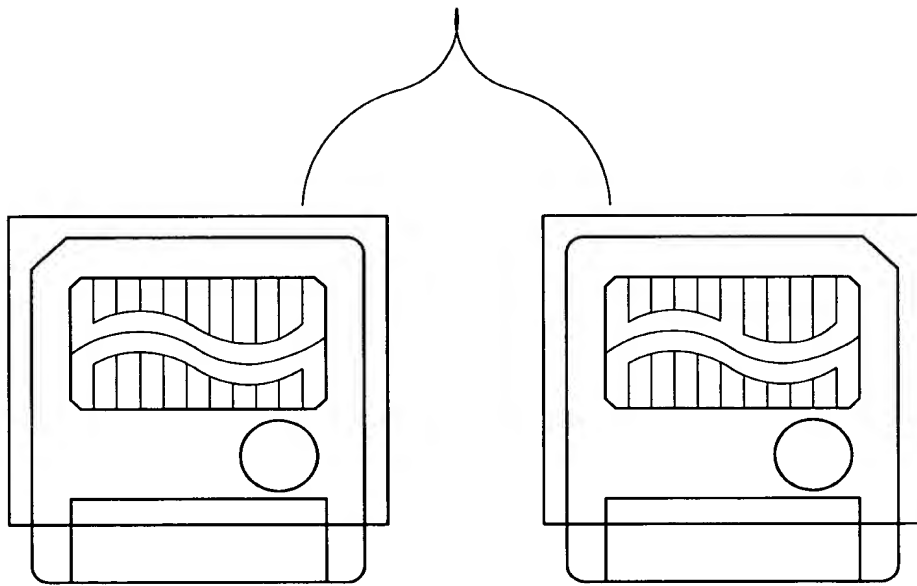


FIG.27

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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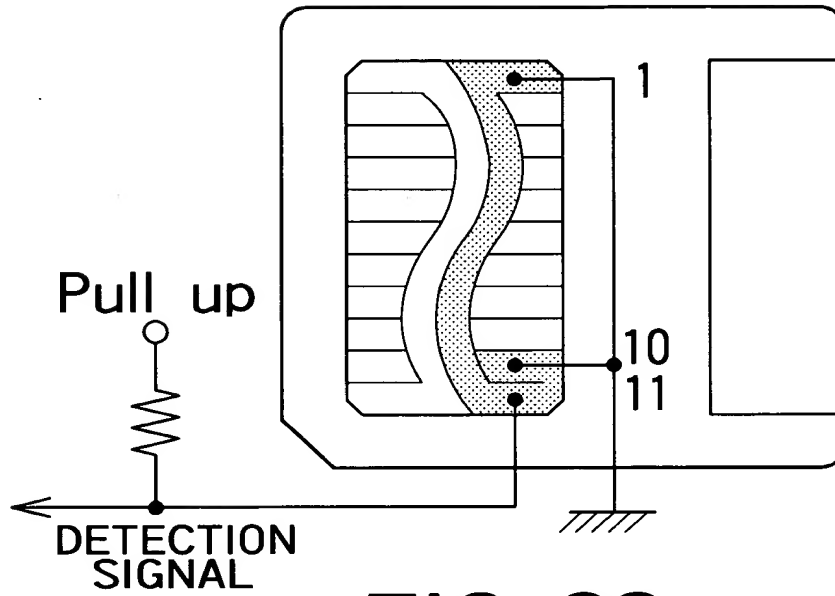


FIG. 28

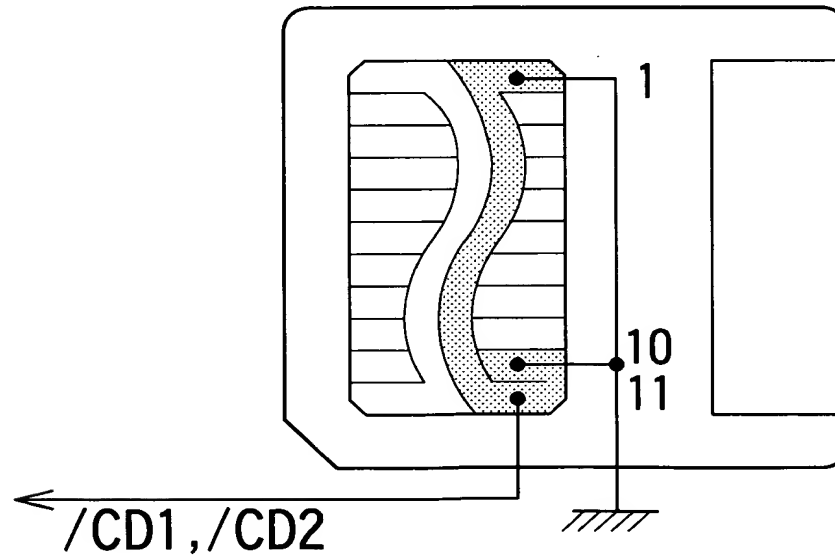


FIG. 29

06/06/00" 01/06/00" 01/06/00"

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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bit7	bit6		bit1		bit0	
1stByte	00000000	111	00000000	110	00000000	001
2ndByte	00000000	111	00000001	110	00000001	001
	:	:	:	:	:	:
255thByte	11111110	111	11111110	110	11111110	001
266thByte	11111111	111	11111111	110	11111111	001

FIG. 30

LP00=D(*****0、***)、LP01=D(*****1、***)
 LP02=D(*****0*、***)、LP03=D(*****1*、***)
 LP04=D(*****0**、***)、LP05=D(*****1**、***)
 LP06=D(****0***、***)、LP07=D(****1***、***)
 LP08=D(***0****、***)、LP09=D(***1****、***)
 LP010=D(**0*****、***)、LP011=D(**1*****、***)
 LP012=D(*0*****、***)、LP013=D(*1*****、***)
 LP014=D(0*****、***)、LP015=D(1*****、***)
 LP00=D(*****、**0)、LP01=D(*****、**1)
 LP02=D(*****、*0*)、LP03=D(*****、*1*)
 LP04=D(*****、0**)、LP05=D(*****、1**)

FIG. 31

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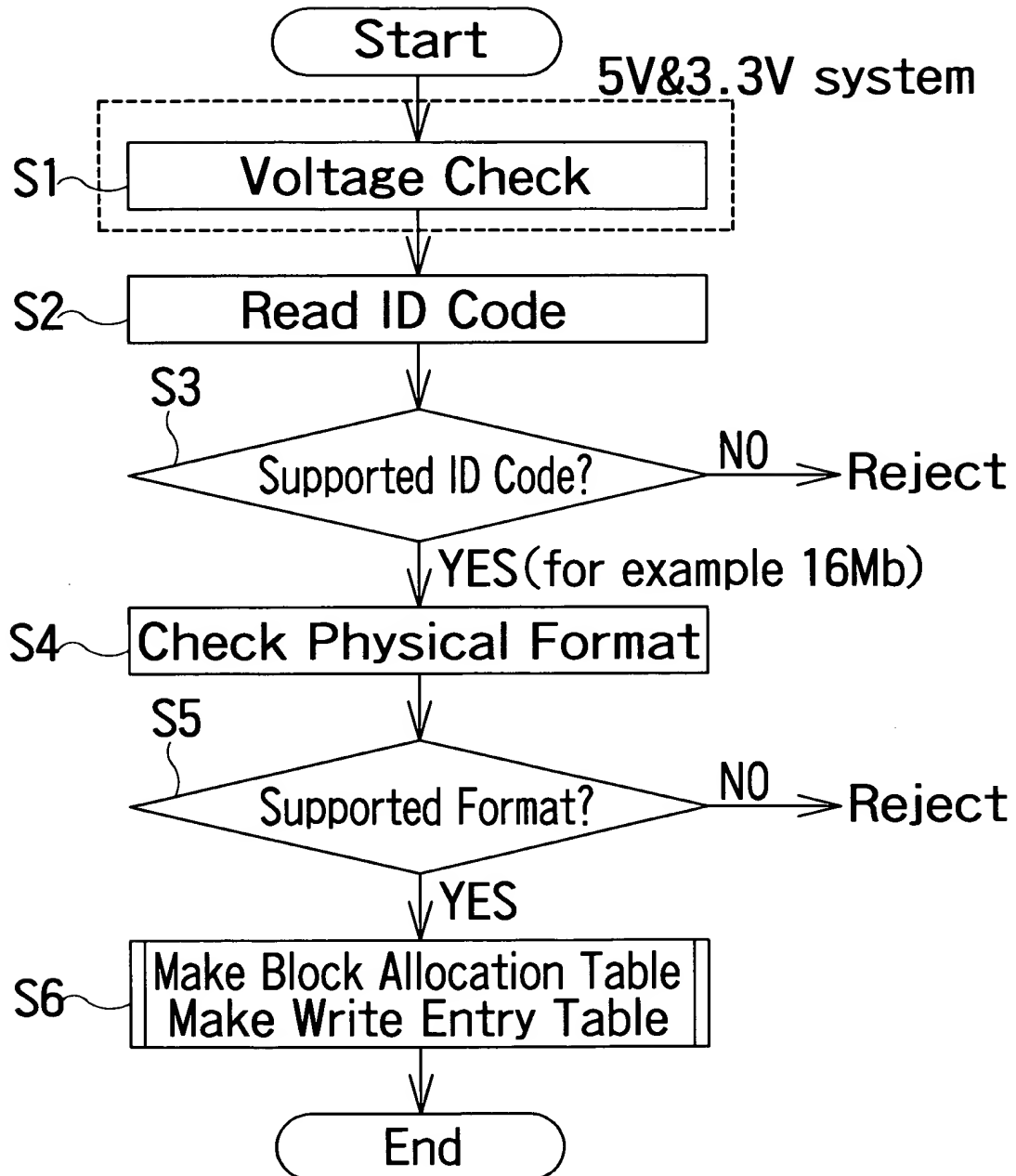


FIG.32

864000"8T800E760

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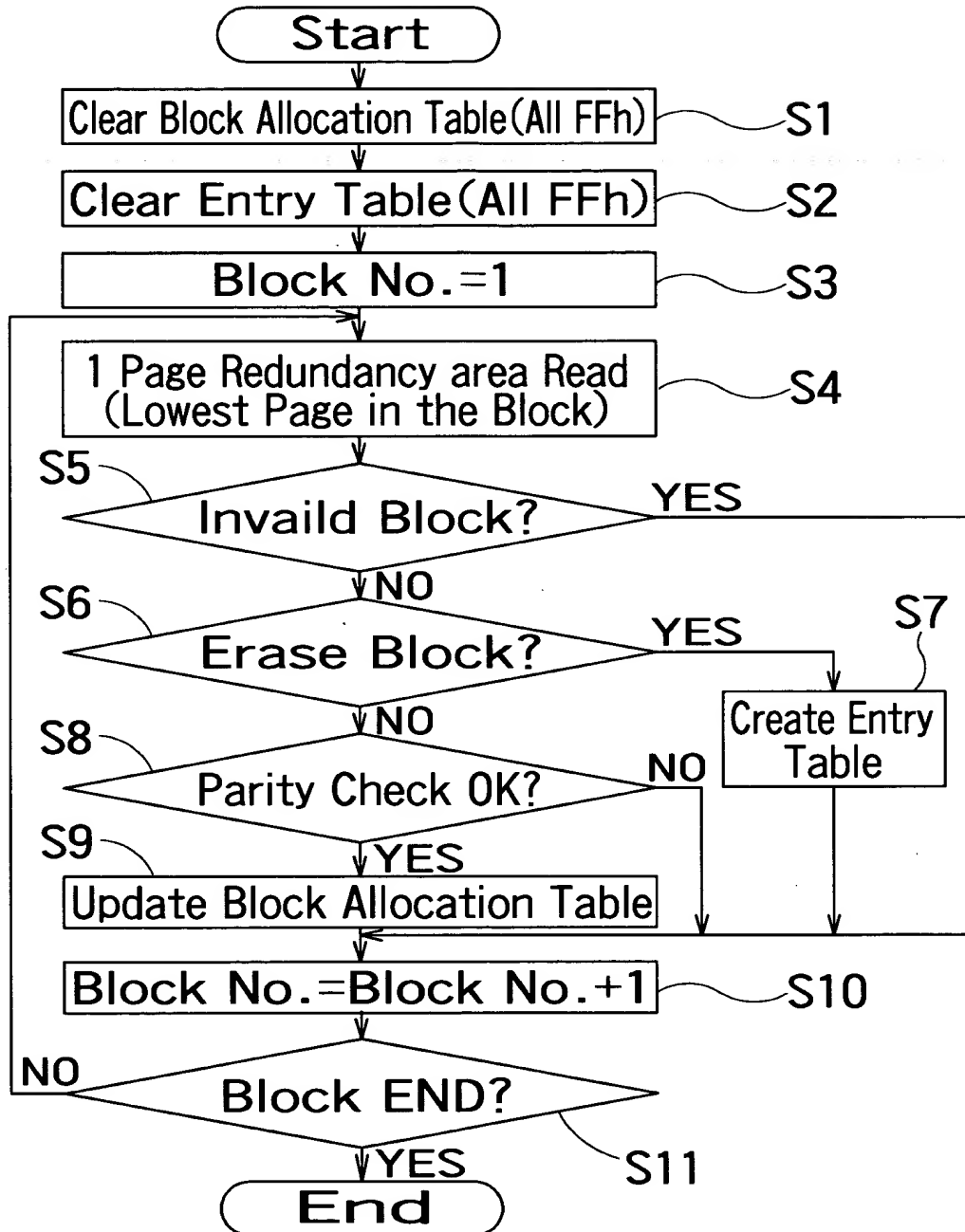


FIG.33

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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OFFSET (LOGICAL BLOCK ADDRESS)	PHYSICAL BLOCK AREA ADDRESS	PHYSICAL BLOCK AREA ADDRESS (BINARY DATA)	
Word0(LBA=0)	0	0000	0000
Word1(LBA=1)	250	1111	1010
Word2(LBA=2)	163	1010	0011
⋮	⋮	⋮	⋮
Word497(LBA=497)	122	0111	1010
Word498(LBA=498)	248	1010	1000
Word499(LBA=499)	64	0100	0000

1 PHYSICAL BLOCK AREA=2 PHYSICAL BLOCK

FIG. 34

364060" 5760E60

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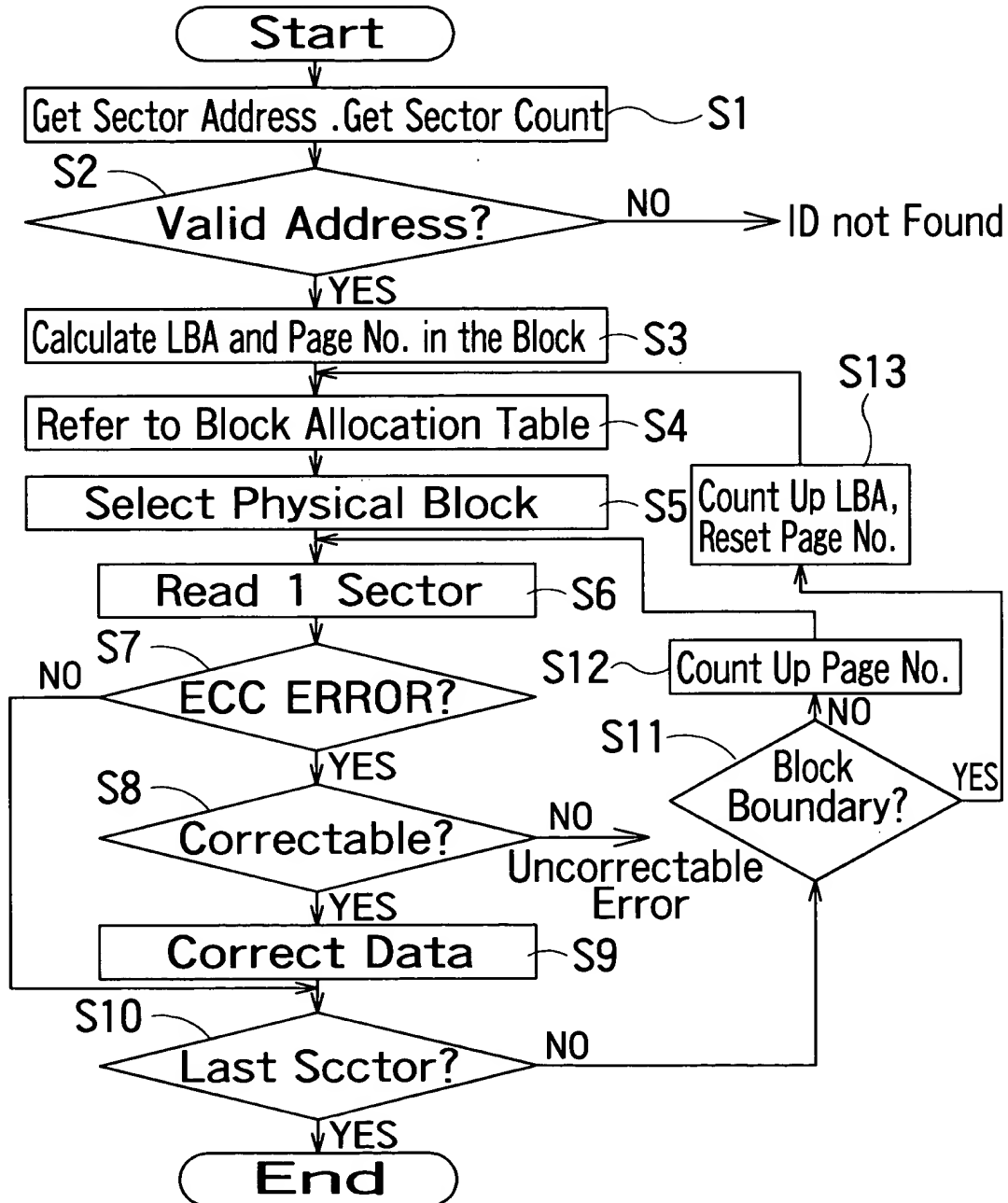


FIG. 35

2025 RELEASE UNDER E.O. 14176

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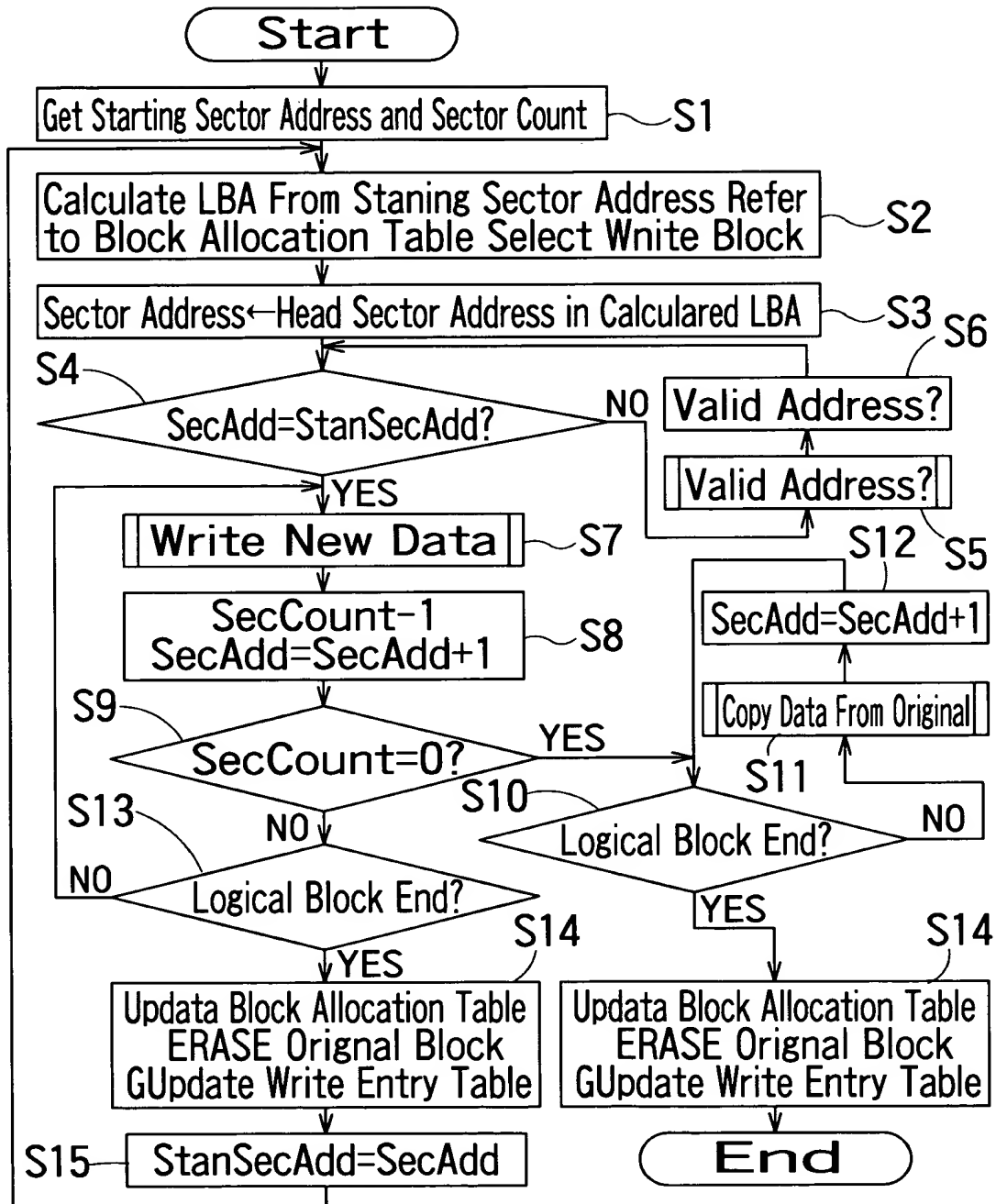


FIG. 36

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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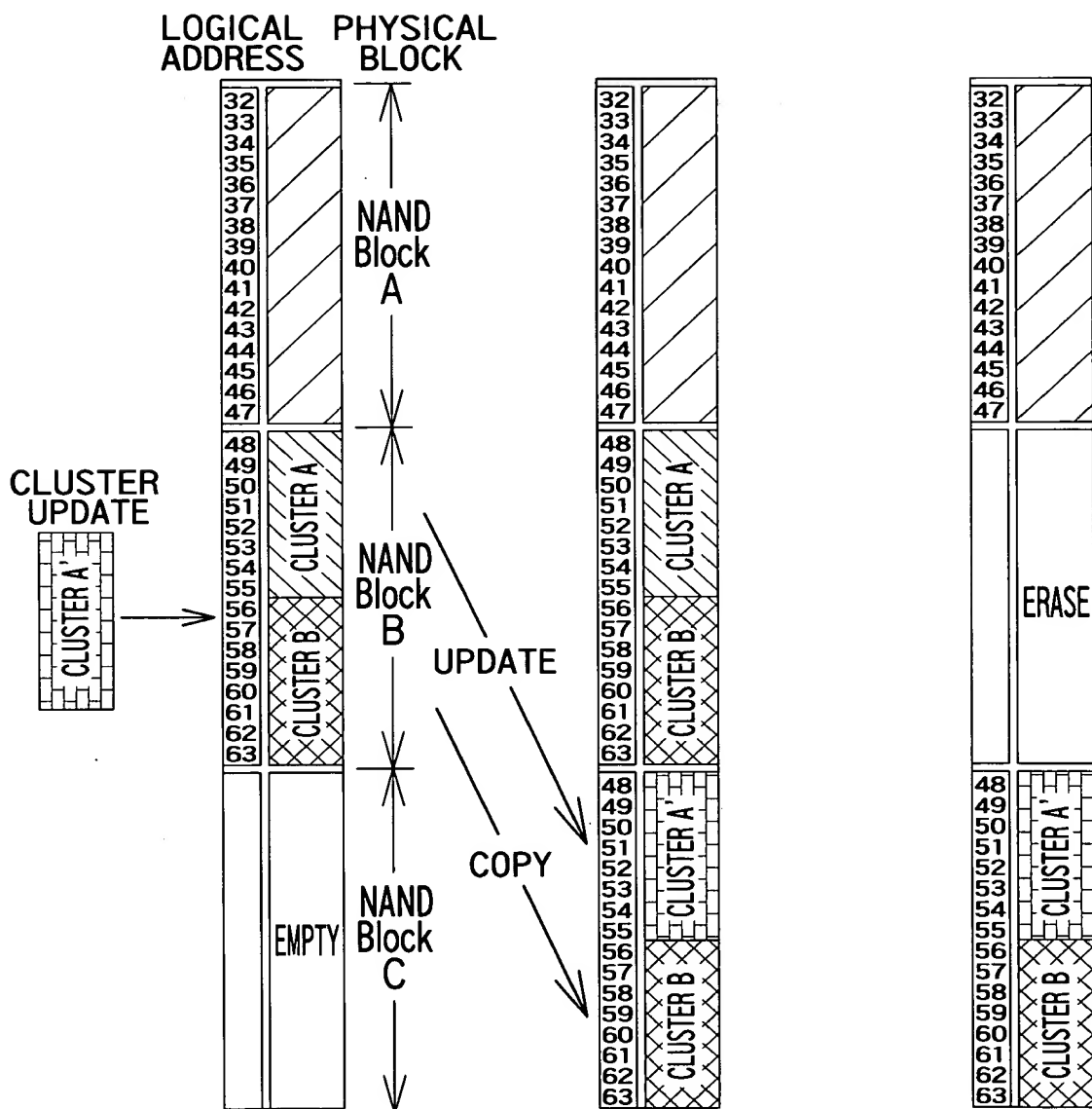


FIG. 38

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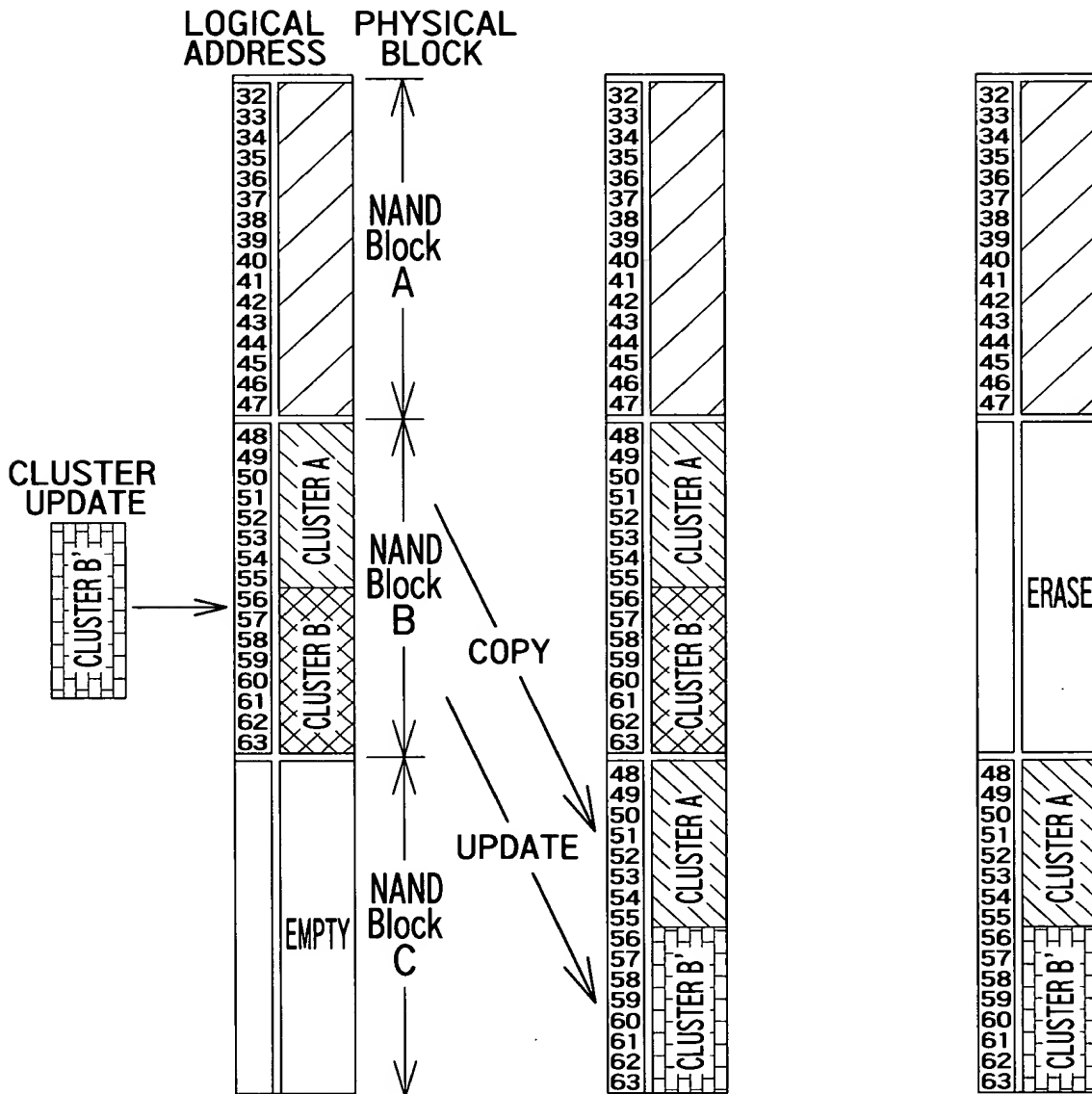


FIG. 39

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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MANAGEMENT AREA

File-1	
File-2	
File-3	
File-4	
⋮	
File-N	

File-1, File-4
ERASE →

MANAGEMENT AREA

File-1	del Mark
File-2	
File-3	
File-4	del Mark
⋮	
File-N	

DATA AREA

File-1
File-2
File-3
File-4
⋮
File-N

DATA AREA

Erased
File-2
File-3
Erased
⋮
File-N

FIG.41

013031-00000

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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OFFSET (LOGICAL BLOCK ADDRESS)	(PHYSICAL BLOCK ADDRESS)	
	Upper Byte	Lower Byte
Word0 (LBA=0)	Physical Block Upper Address	Physical Block Lower Address
Word1 (LBA=1)	Physical Block Upper Address	Physical Block Lower Address
Word2 (LBA=2)	Physical Block Upper Address	Physical Block Lower Address
⋮		
Word247 (LBA=247)	Physical Block Upper Address	Physical Block Lower Address
Word248 (LBA=248)	Physical Block Upper Address	Physical Block Lower Address
Word249 (LBA=249)	Physical Block Upper Address	Physical Block Lower Address

FIG.42(a)

OFFSET (LOGICAL BLOCK ADDRESS)	(PHYSICAL BLOCK ADDRESS)	
	Upper Byte	Lower Byte
Word0 (LBA=250)	Physical Block Upper Address	Physical Block Lower Address
Word1 (LBA=251)	Physical Block Upper Address	Physical Block Lower Address
Word2 (LBA=252)	Physical Block Upper Address	Physical Block Lower Address
⋮		
Word247 (LBA=497)	Physical Block Upper Address	Physical Block Lower Address
Word248 (LBA=498)	Physical Block Upper Address	Physical Block Lower Address
Word249 (LBA=499)	Physical Block Upper Address	Physical Block Lower Address

FIG.42(b)

62000"0T000T00

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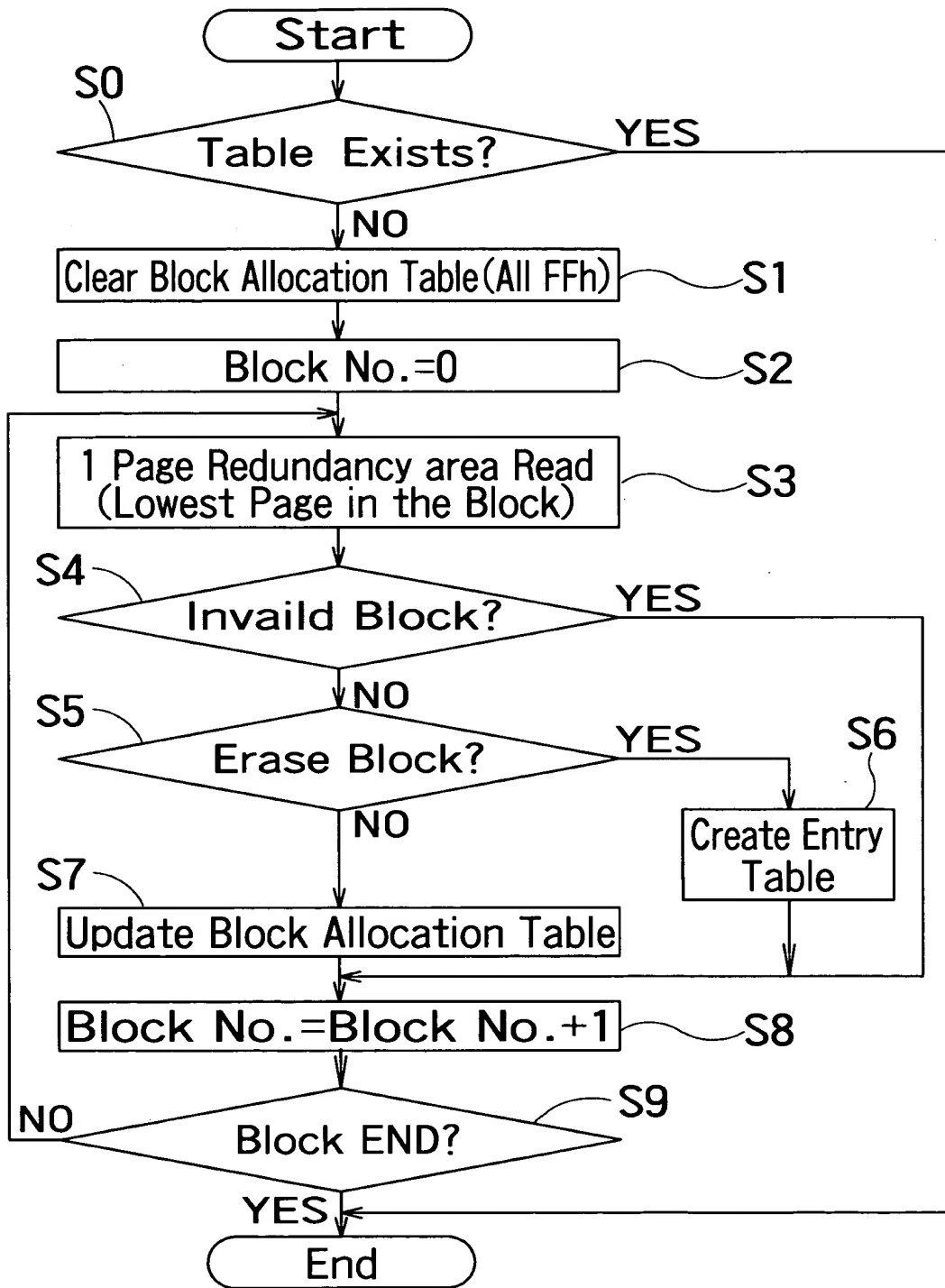


FIG. 43

0430618 080793
364080" 3T80E100

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364000"3T00E160

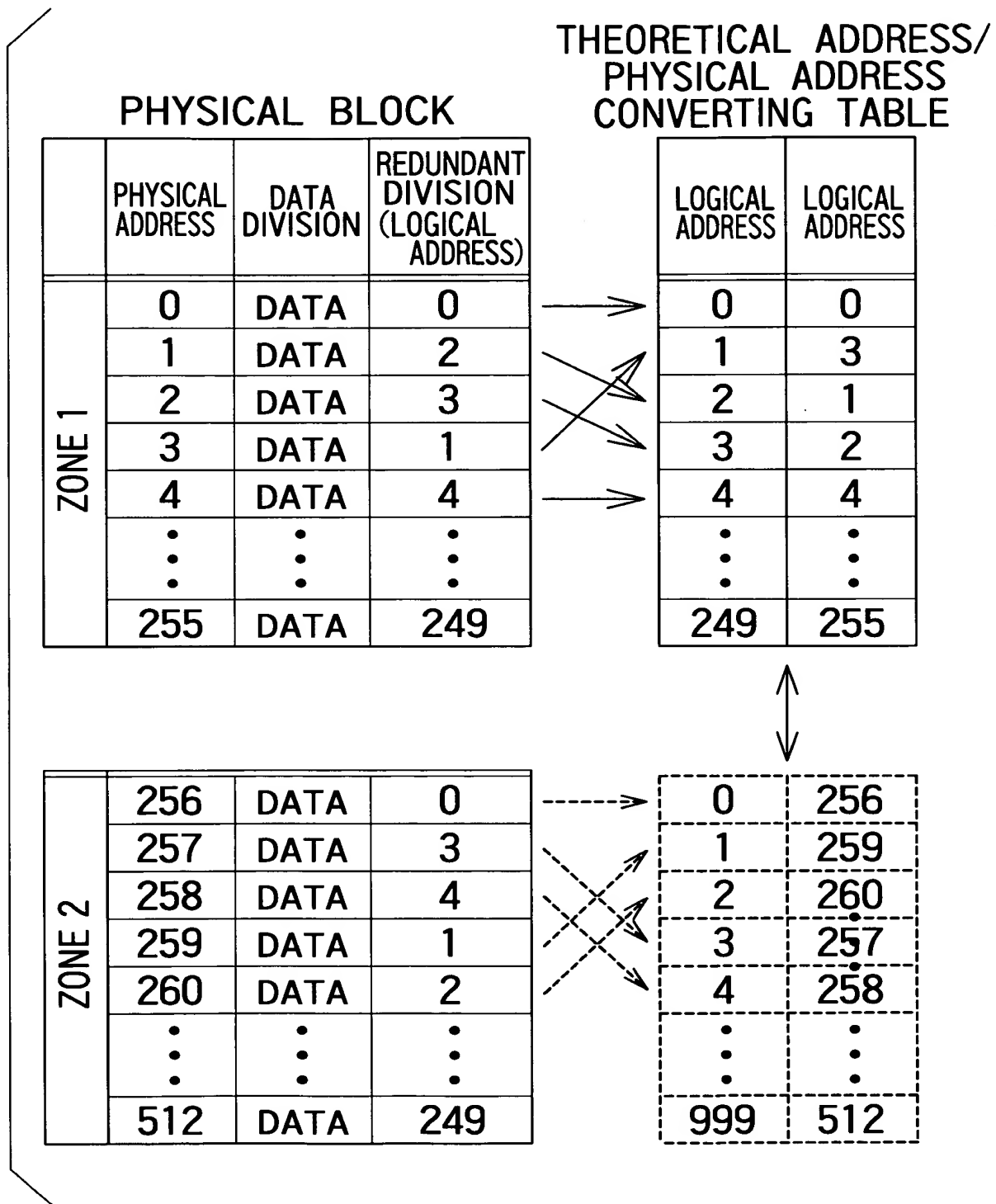


FIG. 44

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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		OFFSET (LOGICAL BLOCK ADDRESS)	PHYSICAL BLOCK ADDRESS	PHYSICAL BLOCK ADDRESS (BINARY DATA)		
ZONE 1	Word0 (LBA=0)	0		0000	0000	0000
	Word2 (LBA=2)	227		0000	1110	0011
	⋮	⋮		⋮	⋮	⋮
	Word254 (LBA=254)	244		0000	1111	0100
	Word255 (LBA=255)	128		0000	1000	0111
ZONE 2	Word256 (LBA=256)	256(256-256=0)		0000	0000	0000
	Word257 (LBA=257)	327(327-256=71)		0000	0100	0111
	⋮	⋮		⋮	⋮	⋮
	Word499 (LBA=499)	500(500-256=244)		0000	1110	0000
	Word500 (LBA=500)	428(428-256=172)		0000	1010	1100

FIG. 45

38/45 "38/45" 38/45

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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BEFORE REPLACEMENT OF BLOCK

PHYSICAL BLOCK
ADDRESS

NG	ZONE 1	0	Block0 data area
		1	Block1 data area
		2	Block2 data area
		3	Block3 data area
		4	Block4 data area
		5	Block5 data area
		6	Block6 data area
NG	ZONE 2	128	Block128 data area
		129	Block129 data area
		130	Block130 data area
		131	Block131 data area
		132	Block132 data area
		133	Block133 data area
	
NG	ZONE 3	256	Block256 data area
		257	Block257 data area
		258	Block258 data area
		259	Block259 data area
		260	Block260 data area
		261	Block261 data area
		262	Block262 data area
NG	ZONE 4	384	Block384 data area
		385	Block385 data area
		386	Block386 data area
		387	Block387 data area
		388	Block388 data area
		389	Block389 data area
	

REDUNDANT BLOCK

AFTER REPLACEMENT OF BLOCK

PHYSICAL BLOCK
ADDRESS

NG	ZONE 1	0	Block0 data area
		1	Block1 data area
		2	Block2 data area
		3	Block3 data area
		4	Block4 data area
		5	Block5 data area
		6	Block6 data area
NG	ZONE 2	128	Block128 data area
		129	Block129 data area
		130	Block130 data area
		131	Block131 data area
		132	Block132 data area
		133	Block133 data area
	
NG	ZONE 3	256	Block256 data area
		257	Block257 data area
		258	Block258 data area
		259	Block259 data area
		260	Block260 data area
		261	Block261 data area
		262	Block262 data area
NG	ZONE 4	384	Block384 data area
		385	Block385 data area
		386	Block386 data area
		387	Block387 data area
		388	Block388 data area
		389	Block389 data area
	

REDUNDANT BLOCK

2	Block2 data area
5	Block5 data area
129	Block129 data area
131	Block131 data area

FIG. 46

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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BEFORE REPLACEMENT OF BLOCK

PHYSICAL BLOCK ADDRESS

NG	0	Block0 data area
	1	Block1 data area
NG	2	Block2 data area
	3	Block3 data area
	4	Block4 data area
NG	5	Block5 data area
NG	6	Block6 data area
	7	Block7 data area
	8	Block8 data area
NG	9	Block9 data area
	10	Block10 data area
NG	11	Block11 data area
	12	Block12 data area
	13	Block13 data area
	14	Block14 data area
	⋮	⋮
NG	256	Block256 data area
	257	Block257 data area
	258	Block258 data area
NG	259	Block259 data area
	260	Block260 data area
NG	261	Block261 data area
	262	Block262 data area
	263	Block263 data area
NG	264	Block264 data area
NG	265	Block265 data area
	266	Block266 data area
	267	Block267 data area
	268	Block268 data area
NG	269	Block269 data area
	⋮	⋮

REDUNDANT BLOCK

AFTER REPLACEMENT OF BLOCK

PHYSICAL BLOCK ADDRESS

0	Block0 data area	REDUNDANT BLOCK ^ HARDWARE REDUNDANT
1	Block1 data area	
2	Block2 data area	REDUNDANT BLOCK ^ HARDWARE REDUNDANT
3	Block3 data area	
4	Block4 data area	REDUNDANT BLOCK ^ HARDWARE REDUNDANT
5	Block5 data area	REDUNDANT BLOCK ^ HARDWARE REDUNDANT
6	Block6 data area	
7	Block7 data area	
8	Block8 data area	
9	Block9 data area	
10	Block10 data area	
11	Block11 data area	REDUNDANT BLOCK ^ HARDWARE REDUNDANT
12	Block12 data area	
13	Block13 data area	
14	Block14 data area	
⋮	⋮	
NG 256	Block256 data area	
257	Block257 data area	
258	Block258 data area	
NG 259	Block259 data area	
260	Block260 data area	
NG 261	Block261 data area	
262	Block262 data area	
263	Block263 data area	
NG 264	Block264 data area	
NG 265	Block265 data area	
266	Block266 data area	
267	Block267 data area	
268	Block268 data area	
NG 269	Block269 data area	
⋮	⋮	

REDUNDANT BLOCK

0	Block0 data area
2	Block2 data area
4	Block4 data area
5	Block5 data area
9	Block9 data area
11	Block11 data area

FIG.47

304000"01000000

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

BEFORE REPLACEMENT
OF BLOCK

PHYSICAL BLOCK ADDRESS		
NG	ZONE 1	0 Block0 data area
		1 Block1 data area
		2 Block2 data area
		3 Block3 data area
		4 Block4 data area
		5 Block5 data area
		6 Block6 data area
NG	ZONE 2	128 Block128 data area
		129 Block129 data area
		130 Block130 data area
		131 Block131 data area
		132 Block132 data area
		133 Block133 data area
		...
NG	ZONE 3	256 Block256 data area
		257 Block257 data area
		258 Block258 data area
		259 Block259 data area
		260 Block260 data area
		261 Block261 data area
		262 Block262 data area
NG	ZONE 4	384 Block384 data area
		385 Block385 data area
		386 Block386 data area
		387 Block387 data area
		388 Block388 data area
		389 Block389 data area
		...

AFTER REPLACEMENT
OF BLOCK

PHYSICAL BLOCK ADDRESS		
NG	ZONE 1	0 Block0 data area
		1 Block1 data area
		2 Block2 data area
		3 Block3 data area
		4 Block4 data area
		5 Block5 data area
		6 Block6 data area
NG	ZONE 2	128 Block128 data area
		129 Block129 data area
		130 Block130 data area
		131 Block131 data area
		132 Block132 data area
		133 Block133 data area
		...
NG	ZONE 3	256 Block256 data area
		257 Block257 data area
		258 Block258 data area
		259 Block259 data area
		260 Block260 data area
		261 Block261 data area
		262 Block262 data area
NG	ZONE 4	384 Block384 data area
		385 Block385 data area
		386 Block386 data area
		387 Block387 data area
		388 Block388 data area
		389 Block389 data area
		...

REDUNDANT BLOCK

REDUNDANT BLOCK

129	Block129data area
131	Block131 data area
2	Block2 data area
385	Block385 data area

FIG.48

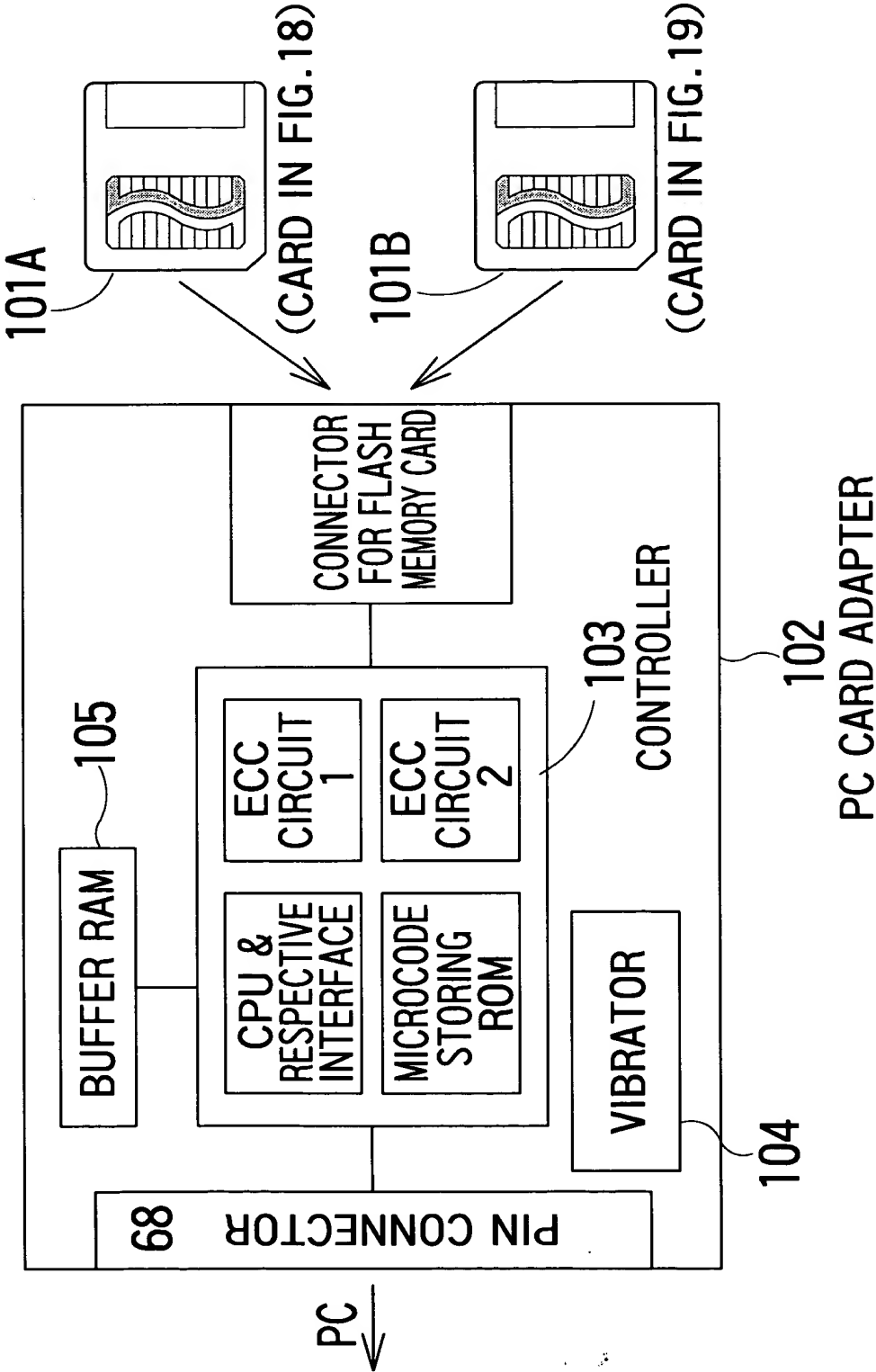


FIG. 49

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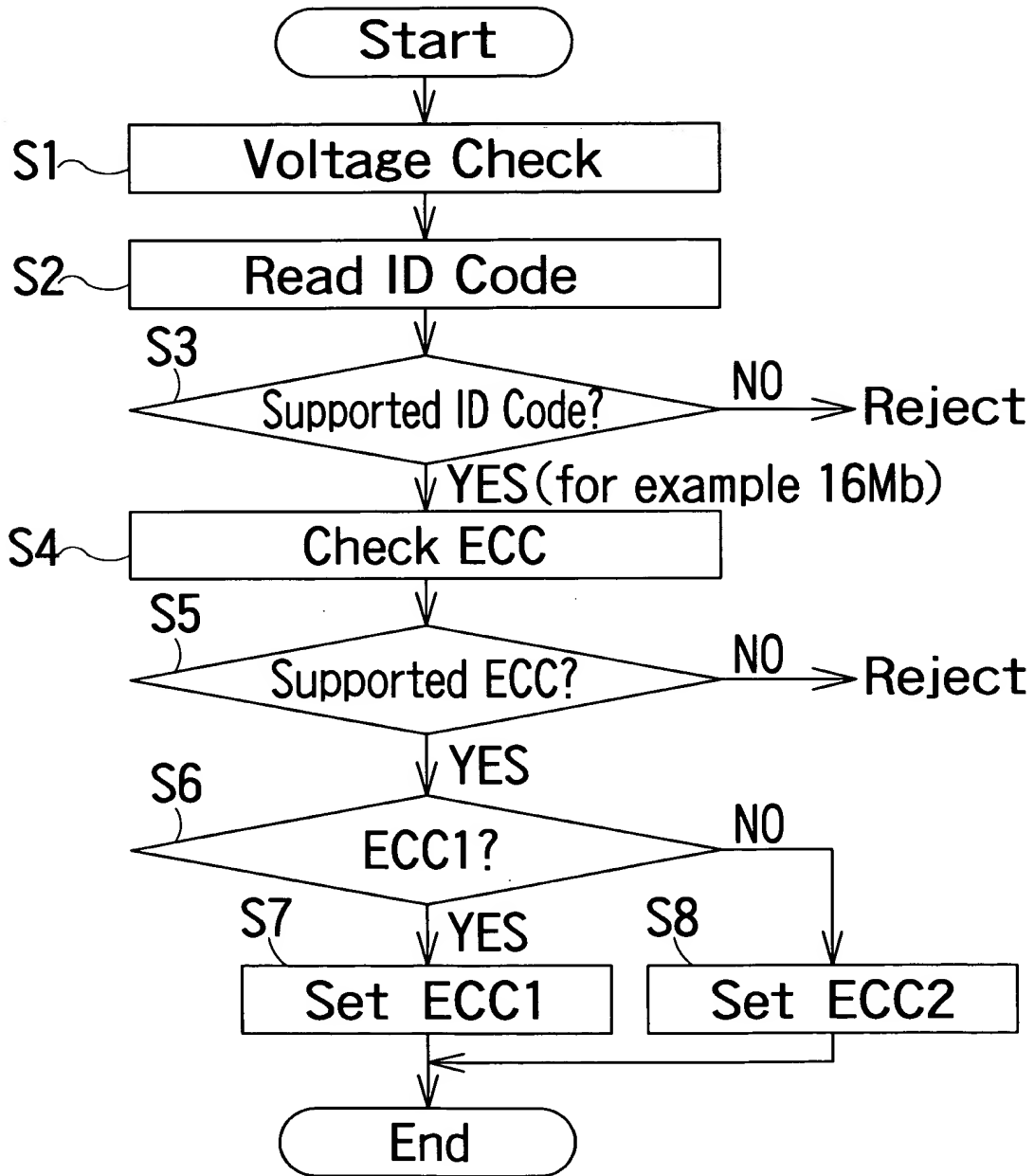


FIG. 50

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APPROVED	O.G. FIG.	
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DATA DIVISION

BYTE	PAGE 0 (EVEN PAGE)	PAGE 1 (ODD PAGE)
0~255	DATA Area-1	DATA Area-2

REDUNDANT DIVISION

BYTE	EVEN PAGE	ODD PAGE
256	ECC Flag Area	ECC Area-2
257	ECC Area-3	
258		
259		
260	Data Status Area	Block Address Area-2
261	Block Status Area	ECC Area-1
262	Block Address	
263	Area-1	

FIG. 51

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APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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	ECC-AREA1	ECC-AREA2	ECC-AREA3	ECC-AREA4
ECC METHOD 1	ECC CODE FOR DATA AREA-1	ECC CODE FOR DATA AREA-2	NULL (ALL "FFh")	ECC1-FLAG
ECC METHOD 2	ECC CODE FOR DATA AREA-1,2	ECC CODE FOR DATA AREA-1,2	ECC CODE FOR DATA AREA-1,2	ECC2-FLAG

FIG. 52